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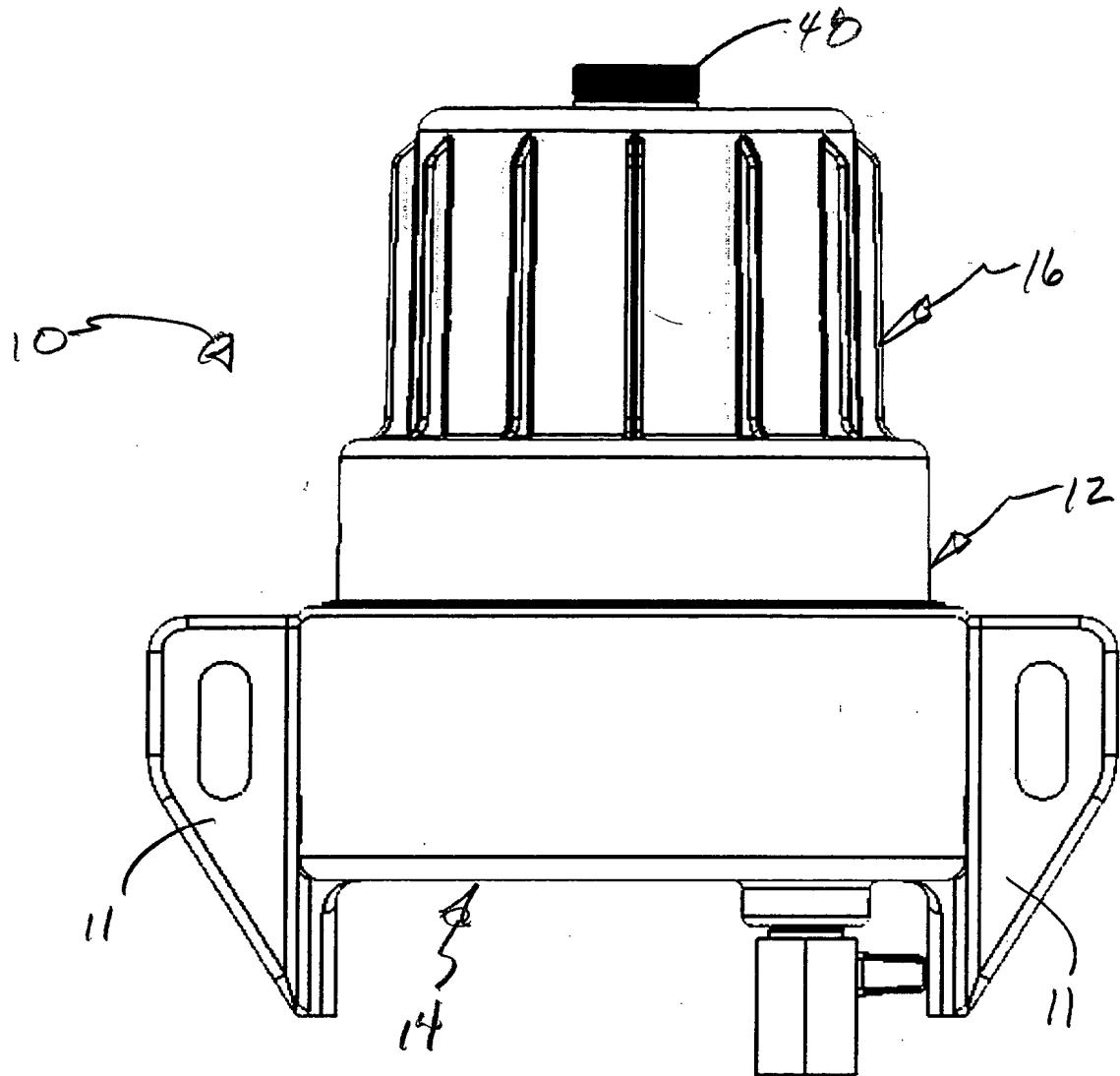
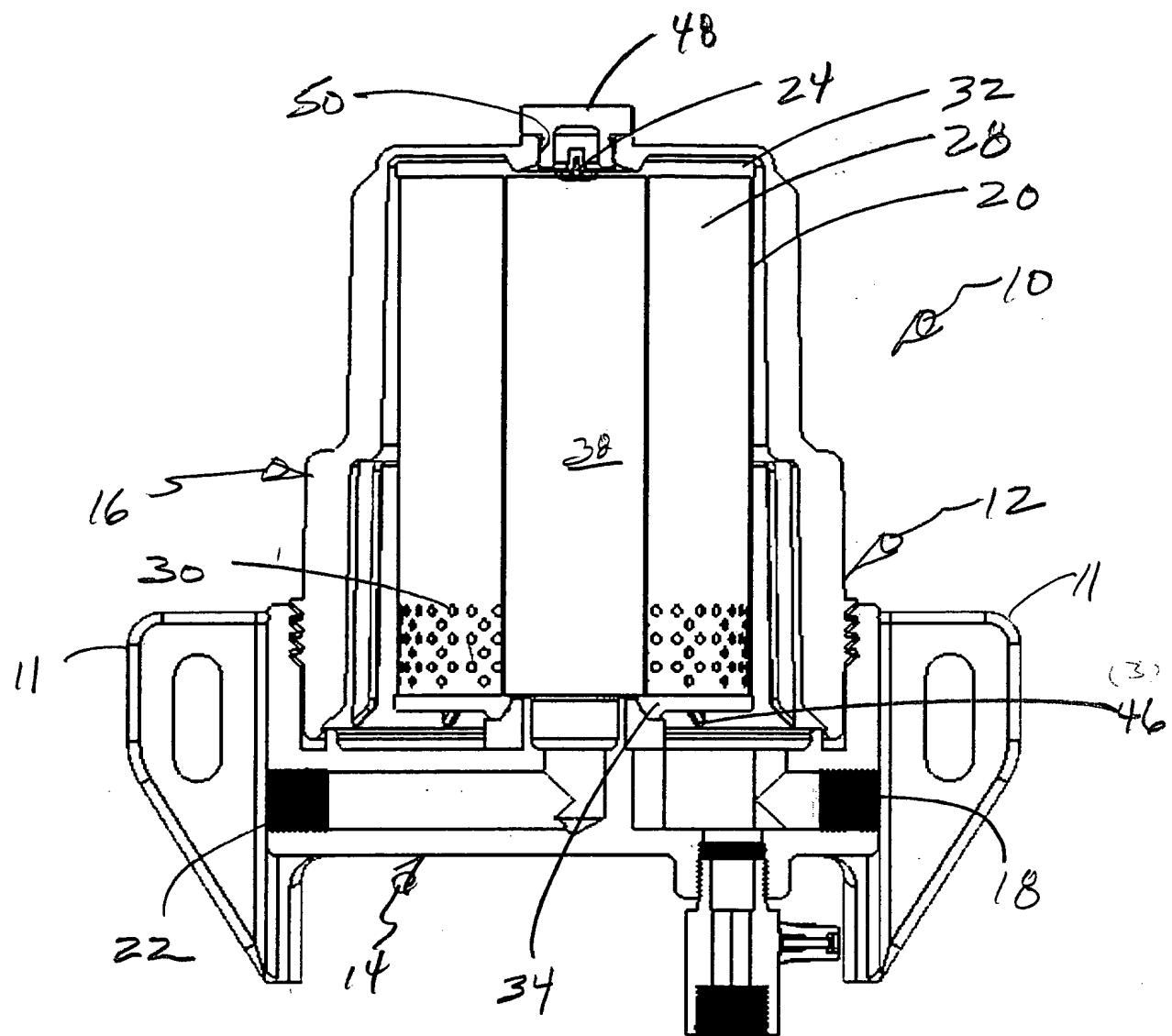


FIG. 1



F16.2

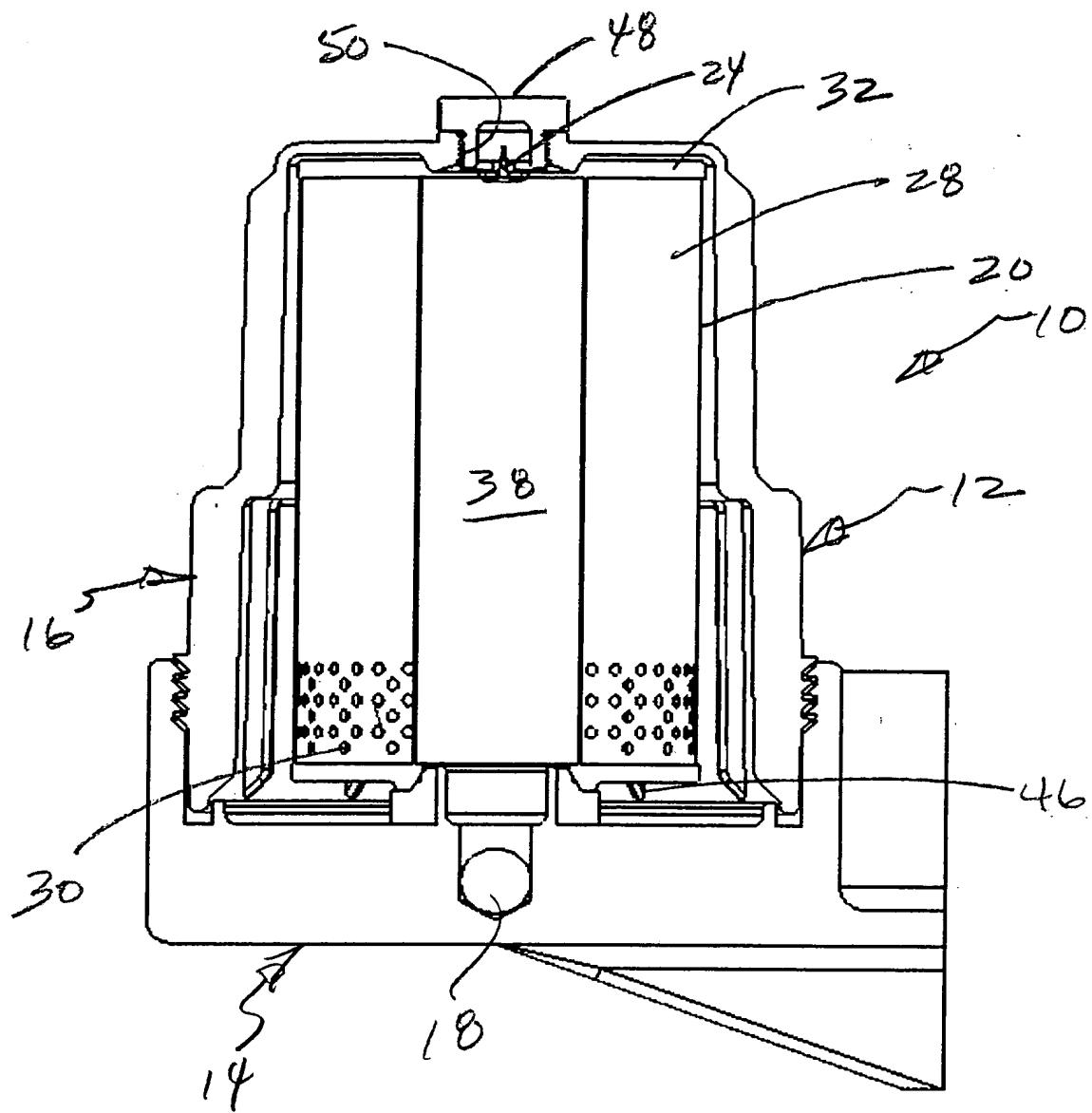


FIG. 3

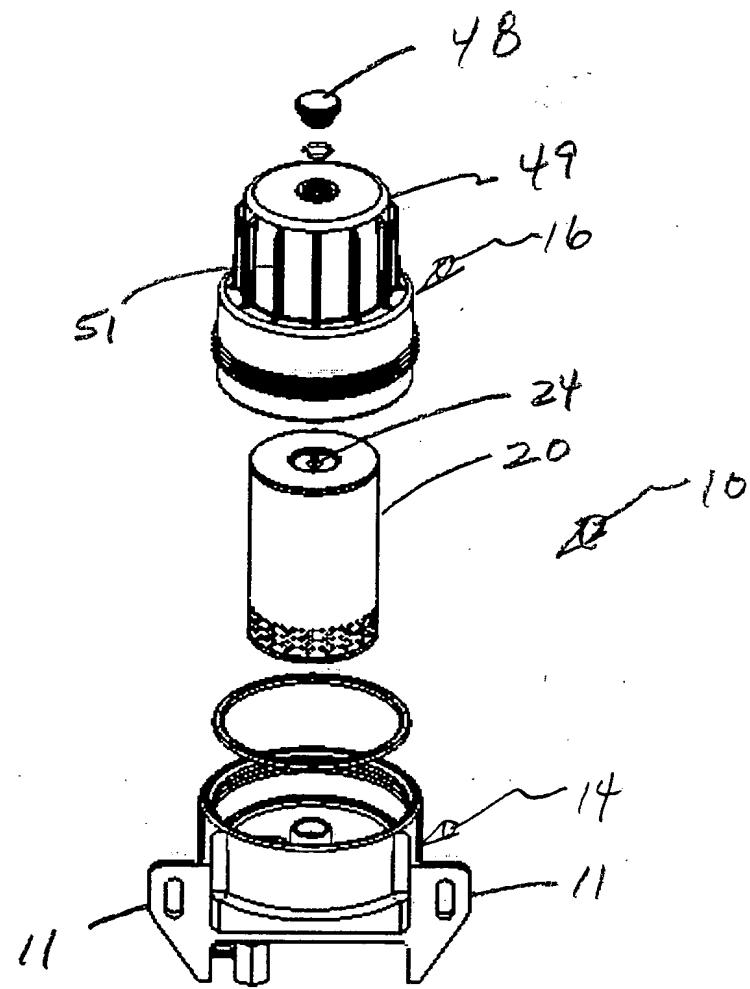


FIG 4

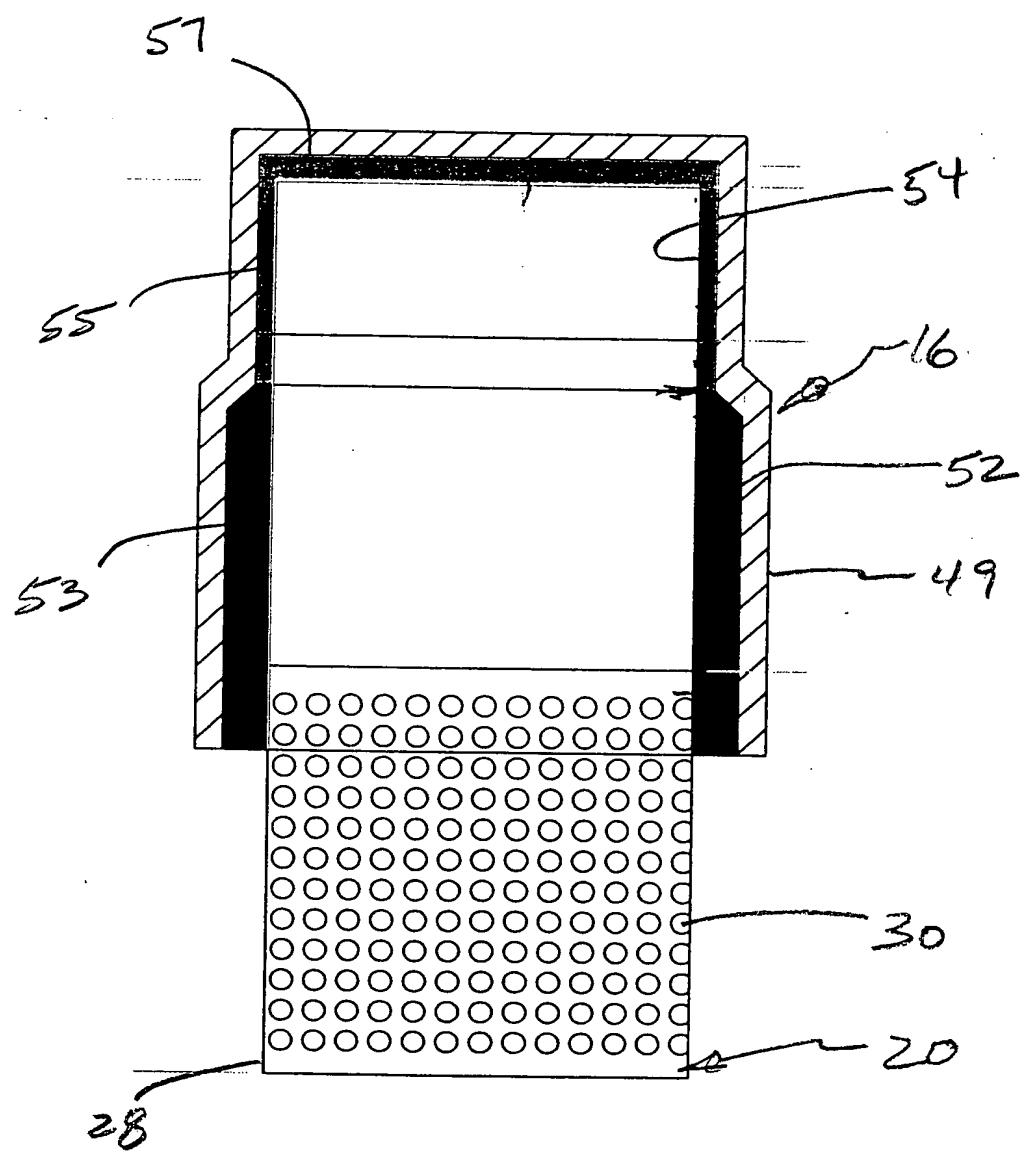


FIG. 5

Filter in Housing

Volume 1- Large volume	
Clearance	0.5 inch
Small Dia	3.82 inch
Large Dia	4.82 inch
height	3.25 inch
Volume 1	22.05 Cubic inch
Volume 1	0.36 Liters

Volume 2 - Small vertical volume	
Clearance	0.15 inch
Small Dia	3.82 inch
Large Dia	4.82 inch
height	1.5 inch
Volume 1	2.81 Cubic inch
Volume 1	0.05 Liters

Volume 3 - volume above filter	
Large Dia	4.82 inch
height	0.2 inch
Volume 1	2.67 Cubic inch
Volume 1	0.009 Liters

Total Volume =	0.42	Liters
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Air volume & Height Calculations

Initial new filter - no fuel	
P1 =	26.7
T1 =	0°

Clean at system pressure	
P2 =	116 PSI
P2 =	1 atm
T2 =	333 K
V2 =	0.055 liters
V2 =	0.6262 Cubic inch
Height below top	

Seeing is Believing end point	
P3 =	188 PSI
P3 =	1.2 atm
T3 =	333 K
V3 =	0.00905 liters
V3 =	0.0000905 Cubic inch
Height below top	

Difference in height		Inches
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F16.6

Filter in Housing

Volume 1- Large volume	
Clearance	0.375 inch
Small Dia	3.82 inch
Large Dia	4.02 inch
height	2.75 inch
Volume 1	13.56 Cubic inch
Volume 1	0.22 Liters

Volume 2 - Small vertical volume	
Clearance	0.1 inch
Small Dia	3.82 inch
Large Dia	4.02 inch
height	2 inch
Volume 1	2.46 Cubic inch
Volume 1	0.04 Liters

Volume 3 - volume above filter	
Large Dia	4.02 inch
height	0.2 inch
Volume 1	0.254 Cubic inch
Volume 1	0.01 Liters

Air volume & Height Calculations

Initial new filter - no fuel	
P1 = 14.7	atm
V1 = 0.22	liters

Clean at system pressure	
P2 = 60	PSI
P2 = 4.71	atm
V2 = 0.665	liters
V2 = 3.659198	Cubic inch
Height below top	2 inches

Seeing is Believing end point	
P3 = 80	PSI
P3 = 5.59	atm
V3 = 0.9935	liters
V3 = 4.922598	Cubic inch
Height below top	Full - at top

Difference in height	2 inches

FIG. 7

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